(a) reacting geranylgeraniol with an alkyl acetoacetate to form a keto ester intermediate; and,

(b) decarboxylating said intermediate to form teprenone.

35. (Added) A method, as claimed in Claim 34, wherein geranylgeraniol is produced biologically.

36. (Added) A method, as claimed in Claim 34, wherein geranylgeraniol is produced by a process comprising:

(a) reacting isopentyl diphosphate with isopentenyl diphosphate:dimethylallyl diphosphate isomerase, in the presence of geranylgeranyl diphosphate synthase to form geranylgeranyl diphosphate; and,

(b) dephosphorylating said geranylgeranyl diphosphate to obtain geranylgeraniol.

37. (Added) A method, as claimed in Claim 34, wherein geranylgeraniol is produced by a process comprising:

(a) reacting isopentyl diphosphate with a compound selected from the group consisting of dimethylallyl diphosphate, geranyl diphosphate, and farnesyl diphsophate, in the presence of geranylgeranyl diphosphate synthase to form geranylgeranyl diphosphate; and,

(b) dephosphorylating said geranylgeranyl diphosphate to obtain geranylgeraniol.

38. (Added) A method, as claimed in Claim 34, wherein geranylgeraniol is produced by a process comprising:

(a) culturing a microorganism in a fermentation medium to produce geranylgeraniol; and,

(b) recovering said geranylgeraniol.

39. (Added) A method, as claimed in Claim 38, wherein said microorganism is genetically modified to decrease the activity of squalene synthase.

40. (Added) A method, as claimed in Claim 38, wherein said microorganism is further genetically modified to increase the activity of HMG-CoA reductase.

41. (Added) A method, as claimed in Claim 30, wherein the teprenone composition is produced by a process, comprising:

(a) biologically producing geranylgeraniol;

(b) reacting said geranylgeraniol with a halogenating reagent to form an alkyl halide;

(c) reacting said alkyl halide with said alkyl acetoacetate in the presence of a base to form said keto ester intermediate; and,

(d) decarboxylating said intermediate to form teprenone.

42. (Added) A method, as claimed in Claim 30, wherein the treatment is prophylactic treatment.

43. (Added) A method, as claimed in Claim 30, wherein the treatment is therapeutic treatment.

44. (Added) A method of treatment for an ulcerative disease, comprising administering a teprenone composition to a patient, wherein the teprenone composition comprises predominately the 6,10,14,18-tetramethyl-5E,9E,13E,17E-nonadecatetraen-2-one isomer.

45. (Added) A method, as claimed in Claim 44, wherein the teprenone composition comprises at least 75% of the 6,10,14,18-tetramethyl-5E,9E,13E,17E-nonadecatetraen-2-one isomer.

46. (Added) A method, as claimed in Claim 44, wherein the teprenone composition comprises at least 90% of the 6,10,14,18-tetramethyl-5E,9E,13E,17E-nonadecatetraen-2-one isomer.

47. (Added) A method, as claimed in Claim 44, wherein the teprenone composition comprises at least 95% of the 6,10,14,18-tetramethyl-5E,9E,13E,17E-nonadecatetraen-2-one isomer.

48. (Added) A method, as claimed in Claim 44, wherein the teprenone composition is produced by a process, comprising:

(a) reacting geranylgeraniol with an alkyl acetoacetate to form a keto ester intermediate; and,

(b) decarboxylating said intermediate to form teprenone.

49. (Added) A method, as claimed in Claim 48, wherein geranylgeraniol is produced biologically.

50. (Added) A method, as claimed in Claim 48, wherein geranylgeraniol is produced by a process comprising:

(a) reacting isopentyl diphosphate with isopentenyl diphosphate:dimethylallyl diphosphate isomerase, in the presence of geranylgeranyl diphosphate synthase to form geranylgeranyl diphosphate; and,

(b) dephosphorylating said geranylgeranyl diphosphate to obtain geranylgeraniol.

51. (Added) A method, as claimed in Claim 48, wherein geranylgeraniol is produced by a process comprising:

(a) reacting isopentyl diphosphate with a compound selected from the group consisting of dimethylallyl diphosphate, geranyl diphosphate, and farnesyl diphsophate, in the presence of geranylgeranyl diphosphate synthase to form geranylgeranyl diphosphate; and,

(b) dephosphorylating said geranylgeranyl diphosphate to obtain geranylgeraniol.

52. (Added) A method, as claimed in Claim 48, wherein geranylgeraniol is produced by a process comprising:

(a) culturing a microorganism in a fermentation medium to produce geranylgeraniol; and,

(b) recovering said geranylgeraniol.

53. (Added) A method, as claimed in Claim 52, wherein said microorganism is genetically modified to decrease the activity of squalene synthase.

54. (Added) A method, as claimed in Claim 52, wherein said microorganism is further genetically modified to increase the activity of HMG-CoA reductase.

55. (Added) A method, as claimed in Claim 44, wherein the teprenone composition is produced by a process, comprising:

(a) biologically producing geranylgeraniol;

(b) reacting said geranylgeraniol with a halogenating reagent to form an alkyl halide;

(c) reacting said alkyl halide with said alkyl acetoacetate in the presence of a base to form said keto ester intermediate; and,

(d) decarboxylating said intermediate to form teprenone.

56. (Added) A method, as claimed in Claim 44, wherein the treatment is prophylactic treatment.

57. (Added) A method, as claimed in Claim 44, wherein the treatment is therapeutic treatment.